

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (original) A flip chip package, comprising:

a flip chip bound to an electroless nickel immersion gold packaging substrate; and

a doped solder ball array bonded to under bump metallization on the packaging substrate via an interface, the solder balls of the array comprising,

a Pb/Sn bulk solder, and

a metal dopant selected from the group consisting of Cu, Al and Ni in an amount of at least 0.2% by weight.
2. (original) The package of claim 1, wherein the metal dopant in the bulk solder bonds or complexes with phosphorus from the under bump metallization.
3. (original) The package of claim 1, wherein the under bump metallization comprises vias filled with successive layers of copper, nickel and gold.
4. (original) The package of claim 1, wherein the metal dopant is in an amount of about 0.2% to 2.5% by weight.
5. (original) The package of claim 1, wherein the metal dopant is Cu.
6. (original) The package of claim 1, wherein the metal dopant is Al.
7. (original) The package of claim 1, wherein the metal dopant is Ni.
- 8-14. (canceled)
15. (original) An electronic apparatus, comprising:

a flip chip bound to an electroless nickel immersion gold packaging substrate;

a printed circuit board; and

a doped solder ball array bonded to under bump metallization on the packaging substrate via an interface and electrically connecting the package to the printed circuit board, the solder balls of the array comprising,

a Pb/Sn bulk solder, and

a metal dopant selected from the group consisting of Cu, Al and Ni in an amount of at least 0.2% by weight.

16. (original) The apparatus of claim 15, wherein the metal dopant is in an amount of about 0.2% to 2.5% by weight.
17. (original) The apparatus of claim 15, wherein the metal dopant is Cu.
18. (original) The apparatus of claim 15, wherein the metal dopant is Al.
19. (original) The apparatus of claim 18, wherein the metal dopant is Ni.